

Amendments to the Claims

Please cancel Claims 16, 21-47, 53, 60, 84, 88, 97-109 and 111-115, and add new Claims 122-185. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1-121. (Canceled)

122. (New) An antibody or antigen-binding fragment thereof that binds mammalian Bonzo and inhibits the binding of a ligand to said Bonzo, wherein said ligand is selected from the group consisting of:

- i) a ligand having the amino acid sequence of SEQ ID NO:4;
- ii) a ligand having an amino acid sequence that is a fragment of SEQ ID NO:4, wherein said fragment is selected from the group consisting of:
 - a) amino acid residues 30-254 of SEQ ID NO:4;
 - b) amino acid residues 1-202 of SEQ ID NO:4;
 - c) amino acid residues 30-202 of SEQ ID NO:4;
 - d) amino acid residues 1-155 of SEQ ID NO:4;
 - e) amino acid residues 30-155 of SEQ ID NO:4;
 - f) amino acid residues 1-117 of SEQ ID NO:4;
 - g) amino acid residues 30-117 of SEQ ID NO:4; and
 - h) amino acid residues 30-95 of SEQ ID NO:4;
- iii) a ligand having the amino acid sequence of SEQ ID NO:6;
- iv) a ligand having the amino acid sequence of SEQ ID NO:8; and
- v) a ligand having the amino acid sequence of amino acid residues 32-101 of SEQ ID NO:8.

123. (New) The antibody or antigen-binding fragment of Claim 122, wherein said mammalian Bonzo is human Bonzo.

124. (New) The antibody or antigen-binding fragment of Claim 122, wherein said ligand is selected from the group consisting of:

- i) a ligand having the amino acid sequence of SEQ ID NO:4;
- ii) a ligand having an amino acid sequence that is a fragment of SEQ ID NO:4, wherein said fragment is selected from the group consisting of:
 - a) amino acid residues 30-254 of SEQ ID NO:4;
 - b) amino acid residues 1-202 of SEQ ID NO:4;
 - c) amino acid residues 30-202 of SEQ ID NO:4;
 - d) amino acid residues 1-155 of SEQ ID NO:4;
 - e) amino acid residues 30-155 of SEQ ID NO:4;
 - f) amino acid residues 1-117 of SEQ ID NO:4;
 - g) amino acid residues 30-117 of SEQ ID NO:4; and
 - h) amino acid residues 30-95 of SEQ ID NO:4; and
- iii) a ligand having the amino acid sequence of SEQ ID NO:6.

125. (New) The antibody or antigen-binding fragment of Claim 122, wherein said antibody or antigen-binding fragment:

- i) inhibits chemotaxis induced upon binding of said ligand to said Bonzo; and/or
- ii) inhibits a transient increase in the concentration of cytosolic free calcium ($[Ca^{2+}]_i$) induced upon binding of said ligand to said Bonzo.

126. (New) The antibody or antigen-binding fragment of Claim 122, wherein said antibody or antigen-binding fragment inhibits chemotaxis induced upon binding of said ligand to said Bonzo.

127. (New) The antibody or antigen-binding fragment of Claim 122, wherein said antibody or antigen-binding fragment inhibits chemotaxis induced upon binding of said ligand to said Bonzo in an *in vitro* chemotaxis assay with an IC_{50} of less than 7 μ g/mL, wherein said ligand consists of amino acid residues 30-254 of SEQ ID NO:4.

128. (New) The antibody or antigen-binding fragment of Claim 122, wherein said antibody or antigen-binding fragment inhibits chemotaxis induced upon binding of said ligand to said Bonzo in an *in vitro* chemotaxis assay with an IC₅₀ of less than 5 µg/mL, wherein said ligand consists of amino acid residues 30-254 of SEQ ID NO:4.
129. (New) The antibody or antigen-binding fragment of Claim 122, wherein said antibody or antigen-binding fragment inhibits chemotaxis induced upon binding of said ligand to said Bonzo in an *in vitro* chemotaxis assay with an IC₅₀ of less than 1 µg/mL, wherein said ligand consists of amino acid residues 30-254 of SEQ ID NO:4.
130. (New) The antibody or antigen-binding fragment of Claim 122, wherein said antibody or antigen-binding fragment inhibits a transient increase in the concentration of cytosolic free calcium ([Ca²⁺]_i) induced upon binding of said ligand to said Bonzo.
131. (New) The antibody or antigen-binding fragment of Claim 122, wherein said antibody or antigen-binding fragment has the epitopic specificity of an antibody selected from the group consisting of:
 - 1) mAb 4A11, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-991;
 - 2) mAb 7A2, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-992; and
 - 3) mAb 7F3, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-990.
132. (New) The antibody or antigen-binding fragment of Claim 122, wherein said antibody or antigen-binding fragment has the epitopic specificity of mAb 7F3, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-990.

133. (New) The antibody or antigen-binding fragment of Claim 122, wherein said antibody or antigen-binding fragment has the epitopic specificity of mAb 4A11, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-991.
134. (New) The antibody or antigen-binding fragment of Claim 122, wherein said antibody or antigen-binding fragment has the epitopic specificity of mAb 7A2, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-992.
135. (New) The antibody or antigen-binding fragment of Claim 122, wherein the binding of said antibody or said antigen-binding fragment to said Bonzo is inhibited by an antibody selected from the group consisting of:
 - 1) mAb 4A11, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-991;
 - 2) mAb 7A2, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-992; and
 - 3) mAb 7F3, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-990.
136. (New) The antibody or antigen-binding fragment of Claim 122, wherein the binding of said antibody or antigen-binding fragment to said Bonzo is inhibited by mAb 7F3, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-990.
137. (New) The antibody or antigen-binding fragment of Claim 122, wherein the binding of said antibody or antigen-binding fragment to said Bonzo is inhibited by mAb 4A11, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-991.
138. (New) The antibody or antigen-binding fragment of Claim 122, wherein the binding of said antibody or antigen-binding fragment to said Bonzo is inhibited by mAb 7A2, the

antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-992.

139. (New) An antibody or antigen-binding fragment thereof that binds to mammalian Bonzo expressed on the membrane of a cell and inhibits a ligand-induced cellular response, wherein:

- 1) said ligand-induced cellular response is selected from the group consisting of:
 - a) chemotaxis; and
 - b) a transient increase in the concentration of cytosolic free calcium ($[Ca^{2+}]_i$);

and

- 2) said ligand is selected from the group consisting of:
 - i) a ligand having the amino acid sequence of SEQ ID NO:4;
 - ii) a ligand having an amino acid sequence that is a fragment of SEQ ID NO:4, wherein said fragment is selected from the group consisting of:
 - a) amino acid residues 30-254 of SEQ ID NO:4;
 - b) amino acid residues 1-202 of SEQ ID NO:4;
 - c) amino acid residues 30-202 of SEQ ID NO:4;
 - d) amino acid residues 1-155 of SEQ ID NO:4;
 - e) amino acid residues 30-155 of SEQ ID NO:4;
 - f) amino acid residues 1-117 of SEQ ID NO:4;
 - g) amino acid residues 30-117 of SEQ ID NO:4; and
 - h) amino acid residues 30-95 of SEQ ID NO:4;
 - iii) a ligand having the amino acid sequence of SEQ ID NO:6;
 - iv) a ligand having the amino acid sequence of SEQ ID NO:8; and
 - v) a ligand having the amino acid sequence of amino acid residues 32-101 of SEQ ID NO:8.

140. (New) The antibody or antigen-binding fragment of Claim 139, wherein said mammalian Bonzo is human Bonzo.
141. (New) The antibody or antigen-binding fragment of Claim 139, wherein said ligand is selected from the group consisting of:
 - i) a ligand having the amino acid sequence of SEQ ID NO:4;
 - ii) a ligand having an amino acid sequence that is a fragment of SEQ ID NO:4, wherein said fragment is selected from the group consisting of:
 - a) amino acid residues 30-254 of SEQ ID NO:4;
 - b) amino acid residues 1-202 of SEQ ID NO:4;
 - c) amino acid residues 30-202 of SEQ ID NO:4;
 - d) amino acid residues 1-155 of SEQ ID NO:4;
 - e) amino acid residues 30-155 of SEQ ID NO:4;
 - f) amino acid residues 1-117 of SEQ ID NO:4;
 - g) amino acid residues 30-117 of SEQ ID NO:4; and
 - h) amino acid residues 30-95 of SEQ ID NO:4; and
 - iii) a ligand having the amino acid sequence of SEQ ID NO:6.
142. (New) The antibody or antigen-binding fragment of Claim 139, wherein said ligand-induced cellular response is chemotaxis.
143. (New) The antibody or antigen-binding fragment of Claim 139, wherein:
 - i) said ligand-induced cellular response is chemotaxis, and said antibody or antigen-binding fragment inhibits said chemotaxis in an *in vitro* chemotaxis assay with an IC₅₀ of less than 7 µg/mL; and
 - ii) said ligand consists of amino acid residues 30-254 of SEQ ID NO:4.
144. (New) The antibody or antigen-binding fragment of Claim 139, wherein:

- i) said ligand-induced cellular response is chemotaxis, and said antibody or antigen-binding fragment inhibits said chemotaxis in an *in vitro* chemotaxis assay with an IC₅₀ of less than 5 µg/mL; and
- ii) said ligand consists of amino acid residues 30-254 of SEQ ID NO:4.

145. (New) The antibody or antigen-binding fragment of Claim 139, wherein:

- i) said ligand-induced cellular response is chemotaxis, and said antibody or antigen-binding fragment inhibits said chemotaxis in an *in vitro* chemotaxis assay with an IC₅₀ of less than 1 µg/mL; and
- ii) said ligand consists of amino acid residues 30-254 of SEQ ID NO:4.

146. (New) The antibody or antigen-binding fragment of Claim 139, wherein said ligand-induced cellular response is a transient increase in the concentration of cytosolic free calcium ([Ca²⁺]_i).

147. (New) The antibody or antigen-binding fragment of Claim 139, wherein said antibody or antigen-binding fragment has the epitopic specificity of an antibody selected from the group consisting of:

- 1) mAb 4A11, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-991;
- 2) mAb 7A2, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-992; and
- 3) mAb 7F3, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-990.

148. (New) The antibody or antigen-binding fragment of Claim 139, wherein said antibody or antigen-binding fragment has the epitopic specificity of mAb 7F3, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-990.

149. (New) The antibody or antigen-binding fragment of Claim 139, wherein said antibody or antigen-binding fragment has the epitopic specificity of mAb 4A11, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-991.
150. (New) The antibody or antigen-binding fragment of Claim 139, wherein said antibody or antigen-binding fragment has the epitopic specificity of mAb 7A2, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-992.
151. (New) The antibody or antigen-binding fragment of Claim 139, wherein the binding of said antibody or said antigen-binding fragment to said Bonzo is inhibited by an antibody selected from the group consisting of:
 - 1) mAb 4A11, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-991;
 - 2) mAb 7A2, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-992; and
 - 3) mAb 7F3, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-990.
152. (New) The antibody or antigen-binding fragment of Claim 139, wherein the binding of said antibody or antigen-binding fragment to said Bonzo is inhibited by mAb 7F3, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-990.
153. (New) The antibody or antigen-binding fragment of Claim 139, wherein the binding of said antibody or antigen-binding fragment to said Bonzo is inhibited by mAb 4A11, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-991.
154. (New) The antibody or antigen-binding fragment of Claim 139, wherein the binding of said antibody or antigen-binding fragment to said Bonzo is inhibited by mAb 7A2, the

antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-992.

155. (New) An isolated cell that produces an antibody or antigen-binding fragment thereof that binds to mammalian Bonzo and inhibits the binding of a ligand to said Bonzo, wherein said ligand is selected from the group consisting of:

- i) a ligand having the amino acid sequence of SEQ ID NO:4;
- ii) a ligand having an amino acid sequence that is a fragment of SEQ ID NO:4, wherein said fragment is selected from the group consisting of:
 - a) amino acid residues 30-254 of SEQ ID NO:4;
 - b) amino acid residues 1-202 of SEQ ID NO:4;
 - c) amino acid residues 30-202 of SEQ ID NO:4;
 - d) amino acid residues 1-155 of SEQ ID NO:4;
 - e) amino acid residues 30-155 of SEQ ID NO:4;
 - f) amino acid residues 1-117 of SEQ ID NO:4;
 - g) amino acid residues 30-117 of SEQ ID NO:4; and
 - h) amino acid residues 30-95 of SEQ ID NO:4;
- iii) a ligand having the amino acid sequence of SEQ ID NO:6;
- iv) a ligand having the amino acid sequence of SEQ ID NO:8; and
- v) a ligand having the amino acid sequence of amino acid residues 32-101 of SEQ ID NO:8.

156. (New) The isolated cell of Claim 155, wherein said mammalian Bonzo is human Bonzo.

157. (New) The isolated cell of Claim 155, wherein said ligand is selected from the group consisting of:

- i) a ligand having the amino acid sequence of SEQ ID NO:4;
- ii) a ligand having an amino acid sequence that is a fragment of SEQ ID NO:4, wherein said fragment is selected from the group consisting of:
 - a) amino acid residues 30-254 of SEQ ID NO:4;

- b) amino acid residues 1-202 of SEQ ID NO:4;
- c) amino acid residues 30-202 of SEQ ID NO:4;
- d) amino acid residues 1-155 of SEQ ID NO:4;
- e) amino acid residues 30-155 of SEQ ID NO:4;
- f) amino acid residues 1-117 of SEQ ID NO:4;
- g) amino acid residues 30-117 of SEQ ID NO:4; and
- h) amino acid residues 30-95 of SEQ ID NO:4; and

iii) a ligand having the amino acid sequence of SEQ ID NO:6.

158. (New) The isolated cell of Claim 155, wherein said antibody or antigen-binding fragment:

- i) inhibits chemotaxis induced upon binding of said ligand to said Bonzo; and/or
- ii) inhibits a transient increase in the concentration of cytosolic free calcium ($[Ca^{2+}]_i$) induced upon binding of said ligand to said Bonzo.

159. (New) The isolated cell of Claim 155, wherein said antibody or antigen-binding fragment inhibits chemotaxis induced upon binding of said ligand to said Bonzo.

160. (New) The isolated cell of Claim 155, wherein said antibody or antigen-binding fragment inhibits chemotaxis induced upon binding of said ligand to said Bonzo in an *in vitro* chemotaxis assay with an IC_{50} of less than 7 $\mu\text{g/mL}$, wherein said ligand consists of amino acid residues 30-254 of SEQ ID NO:4.

161. (New) The isolated cell of Claim 155, wherein said antibody or antigen-binding fragment inhibits chemotaxis induced upon binding of said ligand to said Bonzo in an *in vitro* chemotaxis assay with an IC_{50} of less than 5 $\mu\text{g/mL}$, wherein said ligand consists of amino acid residues 30-254 of SEQ ID NO:4.

162. (New) The isolated cell of Claim 155, wherein said antibody or antigen-binding fragment inhibits chemotaxis induced upon binding of said ligand to said Bonzo in an *in vitro*

chemotaxis assay with an IC_{50} of less than 1 $\mu\text{g/mL}$, wherein said ligand consists of amino acid residues 30-254 of SEQ ID NO:4.

163. (New) The isolated cell of Claim 155, wherein said antibody or antigen-binding fragment inhibits a transient increase in the concentration of cytosolic free calcium ($[\text{Ca}^{2+}]_i$) induced upon binding of said ligand to said Bonzo.
164. (New) The isolated cell of Claim 155, wherein said antibody or said antigen-binding fragment has the epitopic specificity of an antibody selected from the group consisting of:
 - 1) mAb 4A11, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-991;
 - 2) mAb 7A2, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-992; and
 - 3) mAb 7F3, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-990.
165. (New) The isolated cell of Claim 155, wherein said antibody or antigen-binding fragment has the epitopic specificity of mAb 7F3, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-990.
166. (New) The isolated cell of Claim 155, wherein said antibody or antigen-binding fragment has the epitopic specificity of mAb 4A11, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-991.
167. (New) The isolated cell of Claim 155, wherein said antibody or antigen-binding fragment has the epitopic specificity of mAb 7A2, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-992.

168. (New) The isolated cell of Claim 155, wherein the binding of said antibody or antigen-binding fragment to said Bonzo is inhibited by an antibody selected from the group consisting of:

- 1) mAb 4A11, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-991;
- 2) mAb 7A2, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-992; and
- 3) mAb 7F3, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-990.

169. (New) The isolated cell of Claim 155, wherein the binding of said antibody or antigen-binding fragment to said Bonzo is inhibited by mAb 4A11, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-991.

170. (New) The isolated cell of Claim 155, wherein the binding of said antibody or antigen-binding fragment to said Bonzo is inhibited by mAb 7A2, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-992.

171. (New) The isolated cell of Claim 155, wherein the binding of said antibody or antigen-binding fragment to said Bonzo is inhibited by mAb 7F3, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-990.

172. (New) The isolated cell of Claim 155, wherein said isolated cell is selected from the group consisting of an immortalized B cell, a hybridoma and a recombinant cell comprising one or more exogenous nucleic acid molecules that encode said antibody or antigen-binding fragment thereof.

173. (New) An antibody produced by murine hybridoma 4A11, deposited as ATCC Accession Number PTA-991, or an antigen-binding fragment thereof.

174. (New) An antibody produced by murine hybridoma 7A2, deposited as ATCC Accession Number PTA-992, or an antigen-binding fragment thereof.
175. (New) An antibody produced by murine hybridoma 7F3, deposited as ATCC Accession Number PTA-990, or an antigen-binding fragment thereof.
176. (New) Murine hybridoma 4A11, deposited as ATCC Accession Number PTA-991.
177. (New) Murine hybridoma 7A2, deposited as ATCC Accession Number PTA-992.
178. (New) Murine hybridoma 7F3, deposited as ATCC Accession Number PTA-990.
179. (New) A test kit for use in detecting the presence of a mammalian Bonzo or a portion thereof in a biological sample comprising:
 - a) an antibody or antigen-binding fragment thereof that binds to mammalian Bonzo and inhibits binding of a ligand to said mammalian Bonzo, wherein said ligand is selected from the group consisting of:
 - i) a ligand having the amino acid sequence of SEQ ID NO:4;
 - ii) a ligand having an amino acid sequence that is a fragment of SEQ ID NO:4, wherein said fragment is selected from the group consisting of:
 - a) amino acid residues 30-254 of SEQ ID NO:4;
 - b) amino acid residues 1-202 of SEQ ID NO:4;
 - c) amino acid residues 30-202 of SEQ ID NO:4;
 - d) amino acid residues 1-155 of SEQ ID NO:4;
 - e) amino acid residues 30-155 of SEQ ID NO:4;
 - f) amino acid residues 1-117 of SEQ ID NO:4;
 - g) amino acid residues 30-117 of SEQ ID NO:4; and
 - h) amino acid residues 30-95 of SEQ ID NO:4;
 - iii) a ligand having the amino acid sequence of SEQ ID NO:6;
 - iv) a ligand having the amino acid sequence of SEQ ID NO:8; and

- v) a ligand having the amino acid sequence of amino acid residues 32-101 of SEQ ID NO:8; and
- b) one or more ancillary reagents suitable for detecting the presence of a complex between said antibody or antigen-binding fragment and said mammalian Bonzo.

180. (New) The test kit of Claim 179 wherein said antibody or antigen-binding fragment is selected from the group consisting of:

- a) mAb 4A11, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-991;
- b) mAb 7A2, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-992;
- c) mAb 7F3, the antibody produced by the hybridoma cell line deposited as ATCC Accession Number PTA-990;
- d) an antibody that competes with mAb 4A11, mAb 7A2 or mAb 7F3 for binding to mammalian Bonzo; and
- e) an antigen-binding fragment of a), b), c) or d).

181. (New) A method of detecting a mammalian Bonzo or portion thereof in a biological sample, comprising:

- a) contacting a biological sample with an antibody or antigen-binding fragment thereof that binds to mammalian Bonzo and inhibits the binding of a ligand thereto, under conditions appropriate for binding of said antibody or antigen-binding fragment to said Bonzo or a portion thereof; and
- b) detecting binding of said antibody or antigen-binding fragment to said Bonzo or portion thereof;

wherein said ligand is selected from the group consisting of:

- i) a ligand having the amino acid sequence of SEQ ID NO:4;

- ii) a ligand having an amino acid sequence that is a fragment of SEQ ID NO:4, wherein said fragment is selected from the group consisting of:
 - a) amino acid residues 30-254 of SEQ ID NO:4;
 - b) amino acid residues 1-202 of SEQ ID NO:4;
 - c) amino acid residues 30-202 of SEQ ID NO:4;
 - d) amino acid residues 1-155 of SEQ ID NO:4;
 - e) amino acid residues 30-155 of SEQ ID NO:4;
 - f) amino acid residues 1-117 of SEQ ID NO:4;
 - g) amino acid residues 30-117 of SEQ ID NO:4; and
 - h) amino acid residues 30-95 of SEQ ID NO:4;
- iii) a ligand having the amino acid sequence of SEQ ID NO:6;
- iv) a ligand having the amino acid sequence of SEQ ID NO:8; and
- v) a ligand having the amino acid sequence of amino acid residues 32-101 of SEQ ID NO:8, and

wherein the binding of said antibody or antigen-binding fragment to said Bonzo or portion thereof indicates the presence of said Bonzo or portion thereof.

182. (New) A method of treating a subject having an inflammatory disease, comprising administering to said subject an effective amount of an antibody or antigen-binding fragment thereof that binds to mammalian Bonzo and inhibits the binding of a ligand thereto, wherein said ligand is selected from the group consisting of:

- i) a ligand having the amino acid sequence of SEQ ID NO:4;
- ii) a ligand having an amino acid sequence that is a fragment of SEQ ID NO:4, wherein said fragment is selected from the group consisting of:
 - a) amino acid residues 30-254 of SEQ ID NO:4;
 - b) amino acid residues 1-202 of SEQ ID NO:4;
 - c) amino acid residues 30-202 of SEQ ID NO:4;
 - d) amino acid residues 1-155 of SEQ ID NO:4;
 - e) amino acid residues 30-155 of SEQ ID NO:4;

- f) amino acid residues 1-117 of SEQ ID NO:4;
- g) amino acid residues 30-117 of SEQ ID NO:4; and
- h) amino acid residues 30-95 of SEQ ID NO:4;
- iii) a ligand having the amino acid sequence of SEQ ID NO:6;
- iv) a ligand having the amino acid sequence of SEQ ID NO:8; and
- v) a ligand having the amino acid sequence of amino acid residues 32-101 of SEQ ID NO:8.

183. (New) A method of inhibiting a cellular response to binding of a ligand to Bonzo expressed on the surface of a leukocyte in a mammal, comprising administering to said mammal an effective amount of an antibody or antigen-binding fragment thereof that binds to mammalian Bonzo and inhibits the binding of a ligand thereto, wherein said ligand is selected from the group consisting of:

- i) a ligand having the amino acid sequence of SEQ ID NO:4;
- ii) a ligand having an amino acid sequence that is a fragment of SEQ ID NO:4, wherein said fragment is selected from the group consisting of:
 - a) amino acid residues 30-254 of SEQ ID NO:4;
 - b) amino acid residues 1-202 of SEQ ID NO:4;
 - c) amino acid residues 30-202 of SEQ ID NO:4;
 - d) amino acid residues 1-155 of SEQ ID NO:4;
 - e) amino acid residues 30-155 of SEQ ID NO:4;
 - f) amino acid residues 1-117 of SEQ ID NO:4;
 - g) amino acid residues 30-117 of SEQ ID NO:4; and
 - h) amino acid residues 30-95 of SEQ ID NO:4;
- iii) a ligand having the amino acid sequence of SEQ ID NO:6;
- iv) a ligand having the amino acid sequence of SEQ ID NO:8; and
- v) a ligand having the amino acid sequence of amino acid residues 32-101 of SEQ ID NO:8.

184. (New) A method of modulating a Bonzo function comprising contacting a cell that expresses Bonzo with an antibody or antigen-binding fragment thereof that binds to mammalian Bonzo and inhibits the binding of a ligand thereto, thereby modulating the function of said Bonzo, wherein said ligand is selected from the group consisting of:

- i) a ligand having the amino acid sequence of SEQ ID NO:4;
- ii) a ligand having an amino acid sequence that is a fragment of SEQ ID NO:4, wherein said fragment is selected from the group consisting of:
 - a) amino acid residues 30-254 of SEQ ID NO:4;
 - b) amino acid residues 1-202 of SEQ ID NO:4;
 - c) amino acid residues 30-202 of SEQ ID NO:4;
 - d) amino acid residues 1-155 of SEQ ID NO:4;
 - e) amino acid residues 30-155 of SEQ ID NO:4;
 - f) amino acid residues 1-117 of SEQ ID NO:4;
 - g) amino acid residues 30-117 of SEQ ID NO:4; and
 - h) amino acid residues 30-95 of SEQ ID NO:4;
- iii) a ligand having the amino acid sequence of SEQ ID NO:6;
- iv) a ligand having the amino acid sequence of SEQ ID NO:8; and
- v) a ligand having the amino acid sequence of amino acid residues 32-101 of SEQ ID NO:8.

185. (New) A method of inhibiting a Bonzo function comprising contacting a cell that expresses Bonzo with an antibody or antigen-binding fragment thereof that binds to said Bonzo and inhibits the binding of a ligand thereto, thereby inhibiting the function of said Bonzo, wherein said ligand is selected from the group consisting of:

- i) a ligand having the amino acid sequence of SEQ ID NO:4;
- ii) a ligand having an amino acid sequence that is a fragment of SEQ ID NO:4, wherein said fragment is selected from the group consisting of:
 - a) amino acid residues 30-254 of SEQ ID NO:4;
 - b) amino acid residues 1-202 of SEQ ID NO:4;
 - c) amino acid residues 30-202 of SEQ ID NO:4;

- d) amino acid residues 1-155 of SEQ ID NO:4;
- e) amino acid residues 30-155 of SEQ ID NO:4;
- f) amino acid residues 1-117 of SEQ ID NO:4;
- g) amino acid residues 30-117 of SEQ ID NO:4; and
- h) amino acid residues 30-95 of SEQ ID NO:4;

- iii) a ligand having the amino acid sequence of SEQ ID NO:6;
- iv) a ligand having the amino acid sequence of SEQ ID NO:8; and
- v) a ligand having the amino acid sequence of amino acid residues 32-101 of SEQ ID NO:8.